

1. (amended) An HIV-based cell transduction vector comprising a vector nucleic acid encoding:

an HIV packaging site;  
a first viral inhibitor subsequence;  
a splice donor site subsequence;  
a splice acceptor site subsequence;  
an HIV Rev binding subsequence; and,  
a promoter subsequence;

wherein:

the first viral inhibitor subsequence is located between the splice donor site subsequence and the splice acceptor site subsequence;

the splice donor site subsequence and the splice acceptor site subsequence permit splicing of the first viral inhibitor subsequence from the vector nucleic acid in the nucleus of a cell; and,

the promoter subsequence is operably linked to the first viral inhibitor subsequence.

D1  
Sub FE1 → 2. (amended) The cell transduction vector of claim 1, wherein the vector nucleic acid further encodes an HIV Rev binding subsequence, wherein the vector nucleic acid is translocated to the cytoplasm in the presence of an HIV Rev protein, and wherein splicing of the first viral inhibitor sequence is inhibited by Rev.

D2  
14. (amended) The cell transduction vector of claim 1, wherein the vector comprises an HIV retroviral particle.

D3  
17. (amended) The cell transduction vector of claim 14, wherein the HIV retroviral particle is pseudotyped for transduction into hematopoietic stem cells.